University of Alberta

Developmental and Gender Differences in Peer Conflict

by

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CHAPTER 1

Introduction

Overview of Issue

Conflicts are an inevitable part of everyday life and can occur at anytime. They range from minor disagreements that are easily solved to major arguments that are much more difficult to reconcile, leaving long-lasting effects for the individuals involved. For this reason, conflict is commonly viewed as a negative event. In fact, much of the early literature on the subject equates conflict with aggression and violence (e.g., Hocker & Wilmot, 1991). Despite this, however, many researchers have also suggested that conflict may play a positive role in human development as well as a negative one (e.g., Johnson & Johnson, 1996; Laursen & Koplas, 1995; Tezer & Demir, 2001). These researchers believe that disagreements are one of the cornerstones leading to positive change within individuals, affecting areas such as cognitive, social and psychological development.

Peer conflict, defined as mutual opposition between two or more people, is thought to be one of the factors responsible for the formation and transformation of cognitive structures and emotions (Shantz & Hartup, 1992). Researchers have documented how disagreements between pairs tend to produce more response change than agreements do (Laursen, 1993; Nelson & Aboud, 1985). In fact, disagreements with peers may lead to more creative problem solving, which suggests conflict can result in positive changes (Opotow, 1991).

Another area of development that may be both positively and negatively affected by conflict is the social and psychological adjustment of children and adolescents. During these years, children begin to interact with peers their own age. They become concerned

with being accepted by others, entering groups, and building their first friendships, which become increasingly more important to them over the years (Hartup, 1992; 1999). These tasks, however, are very difficult to attain and in order to succeed, children must learn to engage in a number of social activities, one of which pertains to conflict management (Putallaz & Sheppard, 1992; Rose & Asher, 1999). Studies have found that when conflicts are resolved effectively, children are more likely to be accepted into the peer group and their friendships tend to become more meaningful (Johnson & Johnson, 1996). By contrast, those children who have difficulty with conflict management are more likely to be rejected by their peers and tend to have poor friendship adjustment (Rose & Asher, 1999). Consequently, this may lead to detachment from school, poor school achievement (Berndt & Keefe, 1992), and low self-esteem (Opotow, 1991). In addition, these children are more likely to engage in antisocial behaviour (Kazdin, 1987).

Due to the negative effects that unresolved peer conflict can have on the psychological well being of the child, many researchers have attempted to develop various programs in an effort to teach children and adolescents better resolution strategies. These programs include training in social skills (e.g., McGinnis & Goldstein, 1984), social problem solving (e.g., Elias & Tobias, 1996), and anger management (e.g., Feindler & Ecton, 1986). Evaluations of these programs have shown that, for the most part, they are effective in producing positive changes in prosocial behaviour. However, their success in changing negative behaviours and in reducing conflict is limited, particularly for those children with severe conduct disorder (Furman & McQuaid, 1992; Kazdin, 1987). Therefore, further research is needed in order to determine the specific factors that may influence positive and negative outcomes.

One factor that has been found to affect the outcome of conflict situations includes the frequency of disagreements. For example, adolescents who engage in disputes with their peers on a regular basis are more likely to have psychosocial difficulties and dysfunctional relationships (Patterson, DeBarsyshe, & Ramsey, 1989). This finding alone, however, cannot answer the question of outcome entirely. Every conflict episode, rather, consists of a number of distinct components, only one of which involves frequency. Each of these components may play their own part in determining how the dispute will end (Laursen & Collins, 1994). For instance, Laursen and Koplas (1995) found that the more intense an argument was, the greater the chances were for negative conclusions. In fact, intensity of affect has been found to predict outcomes better than frequency does (Laursen & Collins, 1994). Other key components include the conflict issue or reason for the dispute, the oppositional behaviours that start the argument and finally the resolution process and eventual outcome (Shantz, 1987).

Additionally, other factors such as age and gender may also affect any or all of the components of a conflict episode. With regard to developmental factors, for example, adolescents tend to focus more on social issues (i.e., friendship principles) in their disagreements with peers, as opposed to young children who focus on issues of object possession or rules of play (Wheeler, 1994). Conflict resolution also becomes more sophisticated, with adolescents using more cooperative strategies and younger children using more aggressive ones (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Laursen, Finkelstein, Townsend-Betts, 2001). These changes are thought to occur as a result of cognitive maturity through which children begin to develop a greater understanding of their social world (Dunn & Slomkowski, 1992; Selman, 1981).

Gender differences in conflict, in contrast, are thought to occur as a result of variations in the socialization process. As a result, boys and girls develop different values and goals (Beall, 1993; Crombie, 1988). Girls, for instance, tend to be more concerned with relational matters (i.e., friendship principles) and employ more mitigating strategies to resolve disagreements. By contrast, boys tend to be more concerned with issues of dominance or status and are more likely to use physical aggression to end their disputes and achieve their goals (e.g., Miller, Danaher & Forbes, 1986; Rose & Asher, 1999). Finally, with regards to affect following conflict, girls are more likely to report feeling either happy or sad, whereas boys report indifference (Laursen, 1993).

Present Study

The present study was designed to explore further the role that developmental and gender differences play in relation to conflict issues and the types of resolution strategies that are used to end disputes. Though there have already been several studies conducted in this area, further investigation is necessary. The majority of the literature on peer conflict, for instance, focuses upon the period of early childhood rather than on older children or adolescents (Laursen, et al., 2001; Shantz, 1987). Furthermore, many studies have used self-report measures and questionnaires that employ a forced-choice format (e.g., Rose & Asher, 1999; Tezer & Demir, 2001). The current study targeted two developmentally distinct age groups (4^{th} and 8^{th} graders) and, using a semi-structured interview, asked these students about their daily conflicts. As well, students were asked to generate their own solutions to hypothetical situations. It was hoped that from this investigation, practitioners and researchers alike would acquire a greater sensitivity to

developmental and gender issues as well as obtain a better understanding as to the types of concerns that are important to boys and girls of different age levels.

CHAPTER 2

Literature Review

The following chapter provides a brief review of the peer conflict literature including a discussion of the problems that have arisen in defining the term. Conflict theories will also be presented, beginning with a review of the personality and social perspectives and concluding with a more in-depth look at cognitive developmental theories. The chapter then looks at different standpoints on gender development including the biological and social constructionist views. An evaluation will also be provided in terms of the research that has been conducted in regards to age and gender differences in peer conflict behaviour. Finally, research questions and hypotheses of the present study will be discussed.

Definitional Issues

Interpersonal or peer conflict has been defined as a state of incompatible behaviours or goals (Shantz, 1987) as well as disagreements or overt opposition that occurs between two or more people (Emery, 1992). Although researchers have generally agreed upon this definition, there is still some contention as to how many responses are necessary in order to be considered a conflict (Hartup, Laursen, Stewart, & Eastenson, 1988; Emery, 1992; Shantz, 1987). Some researchers, for example, believe that opposition by one member of a dyad is sufficient. That is, only one member needs to respond with resistance to the behaviours engaged in by another (Emery, 1992). Other researchers have argued, however, that this type of interaction shows non-compliance rather than actual conflict and does not take its dyadic nature into account. Instead, they have suggested that because a disagreement involves two or more people, mutual

opposition should be present (Hartup et al., 1988; Shantz, 1987). That is, both parties must engage in opposition either by countering with resistance of their own or by persisting in a particular behaviour.

Although both of these definitions may be considered correct, researchers need to clearly specify how they have defined conflict in order to facilitate research in the future. For example, definitions that include one-sided disputes, cover a greater number of conflict episodes, which could lead to discrepancies when compared to studies that use a less inclusive definition (Laursen & Collins, 1994; Shantz; 1987). For the purpose of the present study, a definition of mutual opposition was adopted, as it demands overt expression from both parties and reflects the true dyadic nature of a conflict.

Another area, which has led to discrepancies in the research, concerns the association that conflict has with the term aggression. As mentioned previously, much of the early literature in this area used these two terms synonymously (e.g., Hocker & Wilmot, 1991). Words such as quarrelling, fighting and arguing had aggressive undertones to them, which served to reinforce the notion that all conflicts are negative (Laursen & Koplas, 1995). Conflict and aggression, however, are two very distinct constructs (even though conflicts may take an aggressive turn) and for this reason, must be distinguished from one another. Aggression, for instance, can be characterized by behaviours that are intended to inflict harm upon others (Laursen & Collins, 1994; Shantz, 1987). These behaviours frequently occur in the context of arguments, hence the confusion of terms. Aggression, however, is only one of the tactics that may be used to end conflicts. In fact, during most conflicts, there is no aggression present at all. Instead

other strategies such as negotiation, compliance or assertiveness are used in order to win the disagreement (Shantz & Hartup, 1992).

Deutsch (1973) helped to provide further clarity on this issue by distinguishing between two different types of conflict, constructive and destructive. Constructive conflict, for example, involves the use of mutual problem solving strategies such as negotiation and compromise. This type of opposition tends to end quickly and social interaction between the individuals involved is often maintained (Furman & McQuaid, 1992; Hartup & Laursen, 1993). Destructive conflict, on the other hand, consists of aggressive tactics such as coercion or threats (Deutsch, 1973). In addition, the disagreement often escalates beyond the original issue to include other matters that may have gone unresolved in previous arguments. Therefore, these types of conflicts tend to be much more intense and last longer than constructive ones do. As well, interaction often ceases following a destructive disagreement, usually ending with disengagement or avoidance (Hartup & Laursen, 1993). Furman and McQuaid (1992) have further suggested that when these negative interactions occur frequently between the members of a dyad, conflict may then be considered dysfunctional.

Definitions such as these have been instrumental in changing the way people think about conflict. They promote the idea that the outcome of a disagreement can be positive as well as negative. Despite this, however, scholars have only recently begun to differentiate between constructive and destructive types in empirical investigations (Hartup & Laursen, 1993; Furman & McQuaid, 1992). This important distinction is necessary because it provides valuable information as to the differences that may exist between children for whom conflict is dysfunctional and children who are able to manage

opposition in a constructive manner. Furthermore, by distinguishing between conflict styles, researchers may be able to develop programs that teach children and adolescents to use constructive strategies when conflict arises (Furman & McQuaid).

Theoretical Conceptions of Conflict

Most theories of human development do address the concept of conflict. Some describe it as an internal process, while others refer to interpersonal discord. Almost all, however, argue that it is a significant force with the power to produce change either within the individuals themselves or in their relationships with others (Shantz, 1987; Shantz & Hartup, 1992). The following section provides a brief description of conflict from each of the two views. Emphasis was placed on cognitive developmental theory because of its relevance to the present study, particularly when explaining the age differences that occur in conflict behaviour.

Personality and Social Development

Many early theorists, such as Freud (1965) and Erikson (1982) based their theories on the concept of intrapsychic discord, describing it as a crisis that occurs within the individual. Freud, for example, believed that conflict arose as a result of an incompatibility between a person's drives and societal norms and rules. He described constructs called the id, ego and superego and suggested that the ego negotiates conflicts that occur between what the person wants to do (the id) and what they feel they should be doing (the superego). Likewise, Erikson (1982) described a series of crises that occur throughout the lifespan. He believed that in order for the individual to move on to the next stage of development, they must successfully resolve the crisis at each level. For instance, in identity versus role confusion, the adolescent must assess his or her strengths

and weaknesses and determine how to cope with them. In other words, they must gain a sense of identity and avoid becoming confused along the way.

In these theories then, conflict represents a turning point. When a crisis is resolved effectively, personality development ensues. However, when conflicts are associated with a negative resolution, psychopathology may result and normal development is hindered (Hergenhahn, 1994). Interpersonal disputes are considered to be a direct result of these unresolved crises, which become externalized in the form of disagreement (Valsiner & Cairns, 1992).

Cognitive Developmental Theory

Another theory, which incorporates both intrapsychic and interpersonal discord, is the cognitive developmental theory. Piaget (1985), one of the main theorists in this area, believed that conflict occurred as a result of both the maturation of the nervous system and a process he referred to as equilibration and disequilibration. He theorized that children actively participate in adapting to the environment around them. They develop mental schemes, from an early age, in order to help them interpret their experience of the world, which he called assimilation. Eventually, children will encounter information that does not fit with their existing schemas and therefore, will experience inner conflict or discomfort. In order to reduce this discomfort, they must either adjust their old schemes to fit this new information or create a new schema altogether. Piaget referred to this as accommodation. These two mechanisms, assimilation and accommodation, were thought to work together throughout four main stages of development, ranging from the sensorimotor stage in infancy through to the formal operational stage in early adolescence. As children move through these stages, they are thought to develop more

advanced cognitive abilities. In the formal operational stage, for example, children and adolescents begin to use abstract reasoning, which Piaget considered to be the highest form of thought.

Another aspect to Piaget's theory explains the role interpersonal discord plays in child development. Piaget (1985) proposed that once a child had reached the concrete operational stage (ages 7 – 11 years), peer conflict would begin to cause a decline in egocentric thinking. That is, the child would begin to reflect on their own logic and reasoning, thereby allowing them to see that other people do have different viewpoints from their own (Shantz, 1987). A reduction in egocentric thinking may also promote a better understanding of the social environment and prompt the child to take the interests of their friends into account. As a result, children in late childhood may start focusing on the nuances of social relationships in their disputes with peers more often than younger children would (Selman, 1981; Shantz, 1987). In addition, the strategies they use to end their disagreements should become more sophisticated. For instance, they would be more likely to use strategies such as negotiation or compromise, rather than coercion or other forms of aggression (Shantz, 1987). Clearly, Piaget, along with most developmentalists, viewed conflict as a positive experience that children learn from.

Theoretical Perspectives on Gender Development

In the same way that cognitive theories may be used to help explain developmental differences in conflict behaviour, gender theories may provide insight into why differences may occur in the behaviour of boys and girls. The majority of gender theories focus on methods of socialization such as parenting styles and cultural expectations. Alternatively, some scholars have examined biological determinants such

as the hormonal differences between males and females. This section provides a brief overview of the social constructionist view on gender development, followed by the gender intensification hypothesis (Hill & Lynch, 1983). The former consists of an integration of behavioural, cognitive and cultural factors that may lead to gender-typed behaviours, whereas the latter provides an explanation as to why these behaviours may become strengthened in adolescence. Finally, an overview of two biological perspectives, the ethological and psychobiological views, will be discussed.

Socialization Theories

Social constructionism. Proponents of the social constructionist theory believe that gender is a social category constructed by the cultural expectations of society (Beall, 1993). In other words, different cultures may have different views as to what constitutes male and female characteristics. Mead (1935), challenging the belief that gender roles are biologically based, conducted a field study in which she observed the cultural beliefs, expectations, and practices of three primitive societies in New Guinea. In the Mundugumour tribe, she found that both men and women were expected to be aggressive and unemotional, whereas the Arapesh tribe expected them both to be passive and maternal. Finally, in the Tchambuli tribe, men were found to be more submissive and the women were more dominant, a reversal of the traditional gender roles in Western societies.

Levi-Strauss (1971) also did research on societal influences by focusing on the division of labour between men and women in different cultures. For example, he found that in some societies women were expected to join war activities, whereas Western cultures usually expected this only of men. Likewise, women were responsible for the

farming in some societies, whereas men were given this position in others. Levi-Strauss argued that this division makes men and women dependent on each other due to the restrictions that are placed on participation in certain activities. It also results in the creation of salient gender categories (Beall, 1993).

Social constructionists believe that children are taught to identify and use these gender categories during the socialization process. They learn by observing the attitudes, feelings, and behaviours of highly influential same-sex models, including the child's parents and their peers. The information obtained from these sources is encoded and processed into cognitive gender schemas, which contain information about specific gender traits as well as stereotypical subtypes within a category (e.g., housewife, businessman). As a result, the child begins to sort and organize information and categorizes people as either male or female. The ability to categorize is an important skill for the child to learn so they know which category they themselves belong to as well as appropriate behaviour and dress for their particular gender group (Beall, 1993).

According to the social constructionist view, differences in the behaviour of boys and girls occur as a result of the cultural expectations they have learned about men and women. These attitudes and beliefs may be further strengthened by interactions with the child's peers. School-aged children have been found to play in sex-segregated groups, which has caused Crombie (1988) to suggest the existence of two separate cultures. As a result, boys and girls develop different values, goals and skills. Boys, for example, tend to play in larger groups and play more competitive team sports, whereas girls tend to have a few close friends and play more turn-taking type games such as jumping rope. As well, social conversation is an important component of girls' interactions. Consequently,

female children may express more concern over interpersonal matters and when faced with conflict, may be more likely to use prosocial resolution strategies such as negotiation and compromise. Boys, on the other hand, are expected to be more dominant and thus, may act in a more aggressive manner in accordance with the gender schemas they have learned (Beall, 1993).

The gender-intensification hypothesis. Another theory, the gender-intensification hypothesis (Hill & Lynch, 1983), has been used to explain gender differences that emerge during adolescence. Proponents of this view have suggested that females go through a period of heightened anxiety as they reach puberty. During this time, female adolescents experience intense pressure to be more feminine and are discouraged from participating in masculine activities. Puberty, for females, brings with it physical changes to their appearance as well as menarche, which is considered a stressful event for many girls. These changes often occur earlier for females and may cause them to alter their views of self as well as the expectations of others. Added to this stress, is entry into a new, often larger school, which brings with it pressure to date older members of the opposite-sex. As a result, parents and society are thought to place even more stress on females to conform to stereotypical gender roles, which may cause adolescent girls to become more self-conscious and lower their self-esteem.

Consequently, adolescent girls may make a greater effort to avoid negative reactions from others and act in a more compliant manner. As well, they may become increasingly concerned with building and maintaining harmonious relationships (Moran & Eckenrode, 1991). When faced with conflict, girls may be more likely to behave in a prosocial manner than boys and may increasingly use more conflict-mitigating strategies

in an effort to maintain connectedness with friends (Hill & Lynch, 1983). Furthermore, these behaviours should differ from the behaviours exhibited by female children in that, adolescents should become even more concerned with relationship issues and use strategies such as negotiation and compromise more often than female children do.

Despite its focus on the socialization pressures faced by girls, the gender intensification hypothesis also posits that males experience increased pressure to conform to stereotypical gender roles as well. In contrast with girls, however, boys are expected to value instrumental goals such as independence and are often expected to excel in areas of academic achievement (Hill & Lynch, 1983). Galambos, Almeida, and Peterson (1990) have argued that because masculine behaviours and interests are highly valued by society, pressure to conform may be even greater for boys than for girls. Boys then, may be more likely to use acts of aggression in their disputes with others and because independence and self-confidence are valued traits in males, boys may be more likely than girls to assert themselves during conflict situations.

Biological Perspectives

Although the socialization perspectives described above have been quite dominant in past years, empirical support has been inconsistent and often insignificant. In fact, there appear to be more similarities in the ways in which boys and girls are socialized than there are differences. In addition, although these theories do allow for the possibility of biological predispositions, the focus has remained on social and cognitive factors. Therefore, a shift towards a more integrated view of gender development has recently begun to emerge incorporating both ethological and psychobiological perspectives (e.g., Maccoby, 2000a).

Ethological view. Proponents of the ethological viewpoint believe gendered behaviours are the result of evolutionary instincts. Researchers in this field had originally studied animal behaviour, however, they soon began to compare it to that of human infants and attempted to discern the adaptive purpose of the evolved patterns that were displayed (e.g., Bowlby, 1969; Hinde, 1966). Geary and Bjorklund (2000), for example, found that young primates tended to play in sex-segregated groups and exhibited much of the same play behaviour as human children did. That is, male primates were more competitive in their play, while their female counterparts were more cooperative. These behaviours were explained in terms of preparedness for reproductive activities, such that boys' instinctual concern for status and dominance may serve to ready them for the competition they will face later on in life when looking for a mate. Cooperativeness and sensitivity towards social issues, may, on the other hand, prepare girls for child rearing which, in primates, is often carried out in social groups. Although this theory is useful in explaining why some types of behaviour may occur, however, it does not, for the most part, take into account the environmental influences which have been found to affect human behaviour (Maccoby, 2000a).

Psychobiological view. The psychobiological perspective, on the other hand, suggests that there is a reciprocal interaction between genes and the environment. Studies have shown how a single allele of a gene can react with specific environmental conditions, influencing biochemical processes. Changes in the biochemical process may then affect behaviour (e.g., Anisman, Zaharia, Meany, & Merali, 1998; Maccoby, 2000b). Exposure to hormones early on in prenatal life, for example, not only produces primary sex characteristics for males and females, but may also affect the genes responsible for

production of neurotransmitters later on in life. This process is thought to either increase or decrease the likelihood of gender-specific behaviours. High levels of androgens such as testosterone (male hormones), for instance, increase the likelihood of masculine behaviours such as aggression (Udry, 2000). When combined with specific environmental conditions such as child rearing practices, these behavioural outcomes may become even more likely and result in greater differentiation between the sexes (Maccoby, 2000a).

Several studies have shown, for example, that child-rearing conditions such as access to peers can affect levels of aggression in male monkeys and produce submission in females. When exposed to androgens in prenatal life, however, females tend to exhibit the same aggressive behaviours as males do (Wallen, 1996). Studies looking at human children have found similar results (e.g., Reinisch, 1977; 1981). Berenbaum and Hines (1992), for instance, examined the behaviour of girls affected by congenital adrenal hyperplasia, a metabolic disorder in which abnormally high amounts of androgens are produced. Females affected by the disorder were found to behave in a more masculine manner than unaffected girls did, thus providing some support for the view that gendered behaviours may result, in part, from biological predispositions. That, along with environmental conditions, such as time spent with peers, or adults, may act to increase or decrease the amount of differentiation that occurs between the sexes.

An Integration of Perspectives

The above viewpoints all have merit in discussions of gender development, however, no one theory by itself can adequately explain the differences that occur between boys and girls. Therefore, it seems reasonable to conclude, as Maccoby (2000a)

suggested, that an integration of perspectives is necessary in order to fully understand how gender develops. In this view, biological predispositions are thought to be highly dependent on the environmental conditions and socialization practices that the child is exposed to. Males, for example, may be predisposed to behave in an aggressive manner, due to high levels of testosterone and their instinctual desire to dominate over peers. Whether they behave in this manner, however, may depend on how they are socialized. Boys who are surrounded by positive role models and reinforced for cooperative behaviours may not end up displaying these innate behaviours. Socialization practices may also be responsible for the differences that occur within each sex, such that these practices may influence how much boys and girls conform to gender stereotypes.

Research on Age and Gender Differences in Conflict Behaviour

The literature pertaining to conflict in childhood and adolescence has been quite extensive and covers a wide range of topics. Despite this, research on peer conflicts has been somewhat lacking, particularly in the area of developmental differences. Most of the research has focused on children in their preschool years, as conflict in this age group tends to be fairly high. Very few studies, however, have examined interpersonal discord in adolescence and even fewer studies have looked at the developmental trends that occur between these age groups (Laursen, et al., 2001; Shantz, 1987). The following section provides a brief overview of the literature on age and gender differences with an emphasis placed on the types of issues that engender conflict as well as the ways in which these disputes are managed.

Developmental Differences

Issues. Though research on developmental trends has been sparse, a shift has been noted nonetheless in regards to the types of issues children and adolescents disagree about (Collins & Laursen, 1992). Young toddlers and preschool children, for example, tend to have the most frequent disputes over issues of object possession and control of the physical environment (i.e., gaining control over a specific area of the playground) (Ross & Conant, 1992; Shantz, 1987; Wheeler, 1994). As well, they have been found to argue over the activities they play and the children who are allowed to participate in these activities (Wheeler, 1994). This is consistent with Piaget's explanation of what happens cognitively across ages.

Another common topic of disagreement in early childhood pertains to group entry. Shantz (1987) reported that in studies examining this matter, more than half of the children met with initial resistance. The children who disrupted an ongoing activity while attempting to join a group, had the most difficulty gaining acceptance. Eventually, however, 35% to 63% of the children succeeded in the task. Clearly, even at this age, children are beginning to learn about their social roles.

As children grow older, the focus of their disagreements begins to shift towards relational rather than individual concerns (Hartup, 1992), which Dunn and Slomkowski (1992) reasoned may occur because of an increased social awareness, resulting from greater cognitive maturity. This provides further support for Piaget's (1985) theory that a reduction in egocentrism will allow the child to take the perspective of another child into account and therefore, they may concentrate more on social issues.

Studies have found that in middle childhood, one of the most common reasons for disagreements involves the violation of friendship principles including issues such as broken promises (Youniss & Volpe, 1978). Group entry disputes have also been found with school-aged children, although attempts made at this age tend to be more successful. Corsaro (1981) found that group members ignored entry bids more often and were more accepting than preschool children were. He further suggested that this may have been due to a greater sensitivity of the effects that rejection may have on the entering child.

During adolescence, conflict continues to center around interpersonal matters such as trust and relationship difficulties. One study found, for example, that "acting in an untrustworthy manner" was one of the most common causes of disagreements cited by high school students (Youniss & Smollar, 1985), while other adolescents have been found to focus upon how their interactions with peers should be structured (Rizzo, 1989). Intimacy also becomes a growing concern as close friendships and romantic connections are established (Azmitia, Kamprath, & Linnet, 1998). Studies have shown that conflicts in more intimate relationships begin to increase throughout adolescence, while disputes between friends decrease (Furman, 1989).

In sum then, the research appears to offer evidence of a developmental trend in regards to conflict issues. However, comparisons between studies should be made with caution. Much of the research to date has varied in terms of conflict definition as well as in the methods used to collect information. Toddlers and preschool children, for example, are often examined by observation in natural settings, but for older children and adolescents this method often proves difficult. Therefore, researchers have frequently

resorted to using self-report measures and questionnaires to examine the conflict behaviour of older populations (Hartup, 1992).

Resolution strategies. Another important structural component of conflict pertains to the strategies that are used to resolve disagreements. This area has perhaps received the most attention from scholars as it provides valuable information as to how children develop moral reasoning as well as how they regulate their emotions and define their own independence (Laursen, et al., 2001). As with the issues described above, the types of strategies used to resolve disagreements appear to follow a developmental pattern and therefore, may provide insight into these questions.

Following cognitive developmental theory, Selman (1981), for example, developed a model based upon how he thought resolution strategies would change with age. He used hypothetical, open-ended dilemmas and later, observations, and came up with five stages in which children formed conceptions about conflict resolution. In the first stage (level 0), preschool children are thought to view friendships as momentary, physical interactions, and as a result use physical force to resolve any conflicts that occur. As children reach levels 1 and 2 (ages 8 to 14), however, they begin to take the psychological effects of conflict into account, and therefore, make more attempts to neutralize situations either by trying to make the other child feel better, or compensating in some other manner. Younger children may also avoid each other for a period of time before resolving the disagreement, whereas older children tend to make more attempts to make everyone in the group happy by reaching a consensus. The last two levels of Selman's model were thought to occur in late adolescence and adulthood. He suggested

that these youth view friendships as mutual, intimate interactions and therefore, use strategies such as compromise and negotiation in an effort to maintain their relationships.

Though Selman's (1981) model has been instrumental in generating research in the area of conflict resolution, some discrepancies in regards to young children have emerged. For example, Selman suggested that children in their preschool years use physical force in their efforts to resolve disputes, whereas research has shown that aggression tends to be a rare occurrence. In Eisenberg and Garvey's (1981) study, the most common tactic used to resolve possession disputes among young children was insistence, followed by reasoning or justification. Other strategies, such as compromise, were used on an infrequent basis, along with physical force, which was found in less than 5% of the cases.

Aggressive reactions, however, were found in another study by Lindeman, Harakka, and Keltikangas-Järvinen (1997). They asked students from three different age groups (11, 14 and 17 year olds) to complete the Social Problem's Questionnaire, which was developed by these researchers in an effort to assess aggression, withdrawal, and prosocial behaviours in response to two hypothetical conflict situations. Contrary to previous findings, the results indicated that aggression was most commonly reported by the 14 year olds and reported the least by the 11 year olds. The researchers argued that this curvilinear relationship between age and aggression could be due to changes in peer relations and the developmental tasks that these youth begin to face (i.e., finding one's own identity).

Finally in another study, a large-scale meta-analysis was conducted in an effort to delineate developmental trends in regards to resolution strategies (Laursen, et al., 2001).

Overall, negotiation was found to be the most preferred method cited by all age groups, however, some variations did occur. For instance, children were found to use coercion more often than other age groups, whereas adolescents used negotiation as well as coercion and disengagement. Young adults, on the other hand, were the least likely to use coercive strategies, resorting to high levels of negotiation instead. Additionally, the researchers looked at responses to hypothetical conflict and compared them to actual conflict behaviour. They found that the discrepancies between the two tended to diminish with age. These findings are consistent with aspects of cognitive developmental theory, suggesting that resolution strategies should become more sophisticated with age because of the advanced cognitive skills that develop as children mature (Piaget, 1965).

Despite Laursen et al.'s (2001) findings, however, limitations to the meta-analysis did exist. For example, due to the variability of the methods used for each investigation, very few studies were able to be included in the analysis. As well, broad categories were used which may have masked subtle differences between the age groups. Due to these limitations and the lack of research on the developmental trends in peer conflict, further study is needed.

Gender Differences

Issues. In contrast to the conflict literature on developmental trends, research on gender differences has been much more extensive. As with the research on age differences, however, the majority of this work has been done with very young children. Though past studies frequently designated this variable as secondary, often with the expectation that no differences would occur, recent work has begun to emerge showing

that boys do appear to exhibit different behaviours in conflict situations than girls do (e.g., Charlesworth & LaFreniere, 1983; Maccoby, 2000a).

In regards to conflict frequency, for example, boys have been found to get into disagreements more often than girls do (Miller et al., 1986). The discrepancy between boys and girls may be due to differences in the socialization process. For instance, societal expectations and rewards may cause girls to behave in a more passive manner, resulting in lower rates of conflict, whereas aggression seems to be acceptable for boys. Furthermore, due to the tendency of children to segregate themselves into gender groups, they quickly develop different values and skills. Girls tend to engage in more turn-taking games which require cooperation. Boys, on the other hand, congregate in larger groups and play more competitive games, which often involve rough play and may provide more opportunities for disagreements to occur (Beall, 1993; Crombie, 1988; Hill & Lynch, 1983).

Precipitating events too, reveal differences between males and females and may affect conflict frequency. Girls, for example, tend to have more disputes related to friendship issues such as a betrayal or broken promises, whereas boys tend to disagree upon issues of power and dominance (Putallaz & Sheppard 1992). Group entry has been found to be particularly difficult for females, perhaps because it relates to how well they fit in socially (Putallaz & Wasserman, 1989). Forbes, Katz, Paul, and Lubin (1982) found that girls appeared to be more concerned with gaining acceptance into the group, while boys seemed to focus more on their status among group members. As a result, boys were more likely to either withdraw from the group or elevate their status in some other way

(e.g., boasting about themselves), whereas girls continued with their attempts to gain entry into the group despite rejection.

Similar results have also been found in studies looking at the gender differences in adolescence. Raffaelli (1997), for example, conducted a study examining the onset, process, and aftermath of adolescent conflicts and found that boys were more likely to have disagreements about issues of power and girls argued more frequently over issues of relationship betrayal. As well, boys tended to focus on structuring their interactions with peers, while girls focused on structuring their relationships. Finally, boys' arguments tended to be shorter in duration than girls' disputes, which may be a function of the conflict issue. That is, relationship issues may be more drawn out, while power issues are resolved more quickly.

Looking back on theories of gender development then, the differences that have emerged in regards to the conflict behaviours of males and females, may result from an interaction between biological predispositions and the process of socialization. From an evolutionary standpoint, for example, boys may argue over issues of status because of an innate wish to dominate over their male peers in an effort to impress and eventually acquire a female mate. As well, society tends to expect and reward boys for participating in competitive games and sports of which the ultimate goal is to win or dominate. Girls, on the other hand, may be more sensitive to social issues due to their instinctual desire for intimacy which may eventually prepare them for child-rearing later on in life. As well, they tend to congregate in smaller, more intimate groups than boys and hence, may be more focused on social nuances (Beall, 1993; Crombie, 1988; Maccoby, 2000a)

Resolution strategies. Conflict management is another area in which gender differences have been examined. For example, Chung and Asher (1996) and later, Rose and Asher (1999), looked at the relationship between children's goals and strategies in conflict situations. In accordance with the research done on conflict issues, boys were more likely than girls to endorse instrumental-control and revenge goals, whereas girls were concerned with relationship-maintenance. In addition, boys tended to use more power assertive and aggressive strategies such as coercion to achieve their goals, while girls used more prosocial ones such as accommodation. Similar findings have also been reported by Miller et al., (1986). An interesting finding in this study, however, was that girls tended to take the sex of the other party into account when choosing a resolution strategy. Disagreements involving boys, for example, resulted in girls using more power assertive strategies, while disagreements with other girls resulted in accommodation. Boys, on the other hand, did not differ in the power assertive and coercive strategies they used.

Although these studies do suggest that boys use more aggressive strategies than girls, recent studies have emerged showing that girls are just as likely to engage in relational forms of aggression such as spreading rumors or purposely excluding children from the group (Crick, 1996; Crick, & Grotpeter, 1995; Crick, Grotpeter, & Bigbee, 2002). As females appear to focus on the intricacies of their relationships more often than boys, acts that damage these social connections may be more effective (Crick, 1996). Females may also engage in relational aggression because it tends to be more covert and therefore, reduces the likelihood for punishment. This may be especially important to

females because society expects them to be more polite and cooperative and tends to look down upon aggression, particularly when exhibited by girls (Beall, 1993).

In another study by Newman, Murray and Lussier (2001) the use of help-seeking strategies were examined in children from grades three and four. Girls in grade 4 were the most likely to seek help from the teacher, which the researchers argued may have occurred because girls at that age seemed more interested in resolving the conflict. Boys, on the other hand, tended to worry this would lead to retaliation from their classmates. Another reason why these differences may occur, however, concerns the make-up of boys' and girls' social groups. Girls, for instance, tend to interact with adults more often than boys do, which may make it easier for them to seek help. Boys, on the other hand, tend to interact more with their peers and thus, may be more worried about retaliation (Crombie, 1988). Finally, boys may see help-seeking as a sign of weakness and because they are "supposed" to be strong, prefer not to get adults involved (Beall, 1993).

Finally, conflict management strategies have also been studied with adolescents. Raffaelli (1997), for example, discovered that girls were more likely to withdraw from conflict situations, followed by a period of non-interaction. In 90% of these cases, the conflicts went unresolved. In contrast, boys were more likely to engage in immediate resolutions, involving capitulation and/or compromise. These findings contradict those found in male and female children, which may be due, in part, to the small sample size used in the study as well as reliance on self-report measures.

Summary

The concept of conflict has generated an extensive amount of literature over the years and has been incorporated into the heart of nearly every major theory of

development. Peer conflict, in particular, is thought to play an important role in the social development of children and adolescents (Hartup, 1999). Children, for example, who are able to manage disagreements effectively tend to be better adjusted socially (Johnson & Johnson, 1996), whereas those who have difficulty with this task tend to have more psychosocial problems and are at risk for maladjustment later on (Rose & Asher, 1999). Age and gender are two factors which have been found to affect the outcome of conflict. Some researchers, for example, believe that as children reach cognitive maturity, they develop a greater understanding of the social world and acquire new cognitive skills such as perspective taking, negotiation and the ability to better read and interpret social cues (Dunn & Slomkowski, 1992; Selman, 1981; Webster-Stratton & Lindsay, 1999). As a result, adolescents tend to become more sensitive to relational issues rather than the materialistic or object-related concerns of younger children (Wheeler, 1994). The strategies used to resolve disagreements also tend to become more sophisticated, with adolescents using more constructive strategies (Laursen et al., 2001) and young children using more destructive ones (Bjorkqvist, et al., 1992).

Differences in peer conflict have also been found in regards to gender. Research has indicated that girls tend to focus on relational matters and employ more mitigating strategies to resolve their disagreements in an attempt to maintain their relationships, whereas boys tend to focus on issues of power and dominance and are more likely to use physical aggression and assertions to end their disputes and achieve their goals (Black, 2000; Miller, et al., 1986; Rose & Asher, 1999). The differences that have emerged between boys and girls may be due, in part, to socialization practices. Through observation and rewards boys and girls may learn about and develop different gender

schemas that help them categorize male and female characteristics and teach them how they themselves should behave (Beall, 1993). This information may be further cemented by interactions with their peers. Boys and girls tend to play in sex-segregated groups and therefore, may learn to value different goals, skills and behaviours (Crombie, 1988). Despite the popularity of the socialization view, however, biology cannot be discounted. Maccoby (2000a) has suggested rather, that biological predispositions and instincts must also be taken into account when attempting to understand gender development.

In conclusion, though extensive work has been done in regards to the developmental and gender differences in peer conflict, more research is still needed. Examination of developmental trends, for example, has been sparse and the methods used in each investigation, inconsistent. As well, the majority of research on peer conflict has been conducted with very young children, while very few studies have been done with adolescents. As conflict has become a growing problem in schools today, and conflict resolution programs, have, for the most part, been found ineffective in reducing destructive behaviours, research on older children and adolescents may aid practitioners in developing more effective programs. As well, it was hoped that the results of this study would bring a greater awareness and sensitivity to developmental and gender issues (i.e., similarities and differences) as well as determine the kinds of things that are important to boys and girls at different age levels.

Purpose of the Study and Hypotheses

The purpose of the present study was to add to the existing literature by examining the types of conflict males and females face with their peers and the types of strategies that are used to resolve these disagreements. In addition, two developmentally

distinct age groups were chosen (grades 4 and 8) in an effort to assess developmental differences as well as determine whether there was an interaction between age and gender in regards to conflict behaviour. The researcher was particularly interested in looking at children's perceptions of disagreements as well as their knowledge of effective strategies. A further question in regards to links between adaptive skills and conflict management abilities was also put forth. In order to answer these questions then, the following hypotheses were made based upon theories of conflict and gender development as well as past research on the topic:

Perceptions and Reports of Conflict

Frequency of conflict:

1. Based upon research findings (Miller et al., 1986; Raffaelli, 1997), and the social constructionist theory of gender development, two main effects were expected to occur between age, gender and conflict frequency. Specifically, grade 8 students were expected to report having a greater range of disputes with their peers and thus, more frequent disagreements than their grade 4 counterparts. However, males from both grade levels were expected to have higher rates of conflict than females.

Developmental differences:

2. Furthermore, because adolescents have more advanced cognitive and social abilities than school-aged children do, eighth graders were expected to report using more constructive strategies (i.e., cooperation) than fourth graders, who were expected to report using more destructive ones (i.e., verbal and physical aggression).

Gender differences:

3. With regard to conflict issues, it was predicted that females would report having more disputes involving relational issues (i.e., friendship betrayal and trust), whereas males were expected to report having more conflicts regarding issues of status and dominance (i.e., who's better at certain sports). This hypothesis was made in accordance with ethological and socialization theories as well as previous research (Putallaz & Sheppard 1992; Raffaelli, 1997).
4. Gender differences were also expected to occur in regards to conflict resolution strategies. Based on previous findings and biological and social theories (Chung & Asher, 1996; Rose & Asher, 1999; Tezer & Demir, 2001), it was hypothesized that girls would report using more effective strategies such as cooperation, whereas boys would report using more aggressive and assertive techniques.
5. Finally, students were asked about their level of affect following conflict to assess some of the short-term outcomes. In line with Laursen's (1993) findings on the perceived impact of conflict, females were expected to report feeling either positive or negative affect (i.e., sad or happy) following their disputes with peers, whereas boys were expected to report feeling indifferent (e.g., "I don't care").

Hypothetical Conflict

6. In response to hypothetical conflict scenarios, two main effects between age and gender was expected to occur based on previous findings on developmental trends (Laursen et al., 2001) and the gender-intensification

hypothesis (Hill & Lynch, 1986). Specifically, it was predicted that grade 8 students would come up with more alternative solutions and more effective strategies than grade 4 students would. However, females from both grade levels were expected to generate more effective strategies than their male counterparts.

Links between Positive Conflict Management and Adaptive Skills

7. Because of the view that conflict can be a positive event as well as a negative one, (Furman & McQuaid, 1992; Laursen & Koplas, 1995; Shantz & Hartup, 1992), it was hypothesized that successful conflict management would be linked to prosocial behaviour and would be indicative of social ability. That is, children who generated the most effective solutions to hypothetical conflict (i.e., cooperation) were also expected to receive higher ratings for adaptive qualities (i.e., leadership, adaptability, interpersonal relations and, social skills) as assessed by teacher and self-reports.

CHAPTER 3

Research Methods and Design

This chapter provides a description of the students who participated in the study as well as the measures and procedures that were used in an effort to answer the questions and test the hypotheses that were presented in the previous chapter. Ethical practices will also be discussed along with procedure used in the study.

Participants

The data used for this study were collected as part of a larger research program which investigated the conflict behaviour of children and adolescents with emotional/behavioural problems in relation to a comparison group. Participants were recruited from two grade levels (grades 4 and 8) from 12 different schools in the Elk Island Separate and Public school systems in the outlying areas of Edmonton, Alberta. The population in these areas was predominantly middle class and Caucasian. The sample used in the present study was randomly selected from members of the comparison group of the larger study. In all, 120 participants were randomly selected, 60 of whom were in grade 4 (mean age of 9.5) and 60 of whom were in grade 8 (mean age of 13.6). An equal number of males and females were chosen from each grade level.

Measures

Three different measures were used in an effort to assess the developmental and gender differences that occur in the conflict behaviour of children and adolescents. The first of these, the Behavior Assessment System for Children (BASC; Reynolds & Kamphaus, 1998), was used to assess emotional/behavioural strengths and weaknesses and to test for links between adaptive skills and conflict strategies. The other two

measures, which included a semi-structured interview, and an adapted version of The Middle School Alternative Solutions Test (AST; Caplan, Weissberg, Bersoff, Ezekowitz, & Wells, 1986), were used to explore perceptions of conflict issues and strategies as well as to assess students' knowledge of effective resolution techniques. A brief review of each measure is provided below.

Teacher and Self-Report Measures of Behavioural Functioning

The Behavior Assessment System for Children. The BASC (Reynolds & Kamphaus, 1992) is a behavioural rating scale that was designed to assist professionals in the identification and diagnosis of emotional and behavioural disorders. This multi-rater instrument consists of three forms that are completed by the child's parents and teachers as well as by the children themselves. In addition, different versions are available for children and adolescents.

The Teacher Report Form (TRF) contains a number of statements describing both adaptive and maladaptive behaviours. Adaptive behaviours include such skills as adaptability and leadership as well as social and study skills. Maladaptive behaviours, on the other hand, include both internalizing (anxiety, somatization, and depression) and externalizing problems (hyperactivity, aggression, and conduct problems) as well as difficulties with school. For each statement, the teacher is asked to report on the frequency of the behaviour over the past 6 months (1 = Never, to 4 = Almost Always). Scores are reported in the form of *T-Scores* ($M = 50$, $SD = 10$) and percentiles and are provided for each subscale as well as for five composite scales: Clinical Maladjustment, Internalizing Problems, Exernalizing Problems, School Problems and Adaptive Skills.

The Self Report of Personality (SRP), on the other hand, measures personality traits and self-perceptions reported by children and adolescents. Similar to the TRF, the form contains statements describing maladaptive behaviours (anxiety, attitude to school and teachers, atypicality, depression, locus of control, sensation seeking, sense of inadequacy, social stress, and somatization) and adaptive behaviours (interpersonal relations, relations with parents, self-esteem, and self-reliance). Students are asked to respond whether each statement is true or false. Like the TRF, scores are reported in the form of *T-scores* and percentiles and are provided for each subscale and four composite scales (School Maladjustment, Clinical Maladjustment, Personal Adjustment, and Emotional Symptoms Index). On both the TRF and SRP, *T-scores* above 70 on scales measuring maladaptive behaviours and below 30 on scales measuring adaptive behaviours are considered clinically significant. Scores between 41 and 59 on both forms fall within the average range.

Items for the BASC were developed using both theoretical and empirical approaches and were standardized on two different samples, the general population and a clinical one. In addition, four sets of norms are available, General, Clinical, Male, and Female. The General norms were used for this study as gender-separate norms have been found to mask differences (Kamphaus & Frick, 1996). The manual reports high reliability for the TRF and SRP with coefficients for internal consistency and test-retest reliability ranging from the mid .80s to the mid .90s. Interrater reliability ranges from .69 to .89 with the lowest values occurring for internalizing problems and adaptive skills. Validity studies have indicated that the TRF is comparable to other behavioural rating scales such as the teacher form of the Child Behavior Checklist (Achenbach & Edelbrock, 1983).

Coefficients range from moderate (.71) to high (.90). The SRP, on the other hand, correlates well with the Minnesota Multiphasic Personality Inventory (MMPI-2; Butcher, Graham, Dahlstrom, Tellegen, & Kaemmer, 1989).

Conflict Measures

Peer Feedback Interview (K3). A semi-structured interview was developed for the larger study (Rinaldi & Heath, 2001) in an effort to obtain information about actual conflicts that occur between children and their peers. The interview format was chosen over a forced choice questionnaire as it was thought to provide more in-depth information and allow the interviewer to query or clarify answers when needed. Eighteen questions were devised based upon a review of the conflict literature. The questions ask about the conflict issues and resolution strategies that are used by boys and girls and also probe the frequency and outcomes of conflict. A sample of the interview questions can be found in Appendix A. A coding scheme was also developed to allow responses to be analyzed quantitatively (See Appendix B for sample codes). Interrater reliability was calculated for 15% of the sample using Cohen's kappa, resulting in coefficients ranging from .89 to 1.00.

The Middle School Alternative Solutions Test (AST). The AST (Caplan, et al., 1986) was designed to measure children's ability to solve social problems. The instrument consists of three hypothetical conflict situations that commonly occur between students in middle school. In the first vignette the child is asked to imagine that another child is picking on them. The second scenario involves a situation in which the child is engaging in an important activity, but is being bothered by another student. Finally, the third story involves a situation in which two students are trying to participate in the same

activity (i.e., both want to read the same magazine). Children are asked to write down, in their own words, what they would do in each situation, which makes the AST different from other measures that use a forced-choice format. Responses for each scenario on the AST are coded based upon the number and type of solution generated (passive, assertive, aggressive, cooperative, etc.). As well, the effectiveness of each solution is rated using a 4-point scale (1=ineffective to 4=very effective). The manual provides detailed information and examples to help the examiner rate each response. Test-retest reliability was reported to range from .84 to .94 and interrater reliability ranges from .82 to .96.

An adapted version of the AST was developed for use in the larger study. Two versions were devised for use with children and adolescents (See Appendix C for a sample of the scenarios). Interrater reliability was calculated for 25% of the sample, again using Cohen's kappa. Coefficients ranged from .90 for effectiveness and .89 for type of solution.

Ethical Practices

An ethics proposal was drawn up for the larger study and was submitted for review to the Department of Educational Psychology Research and Ethics Committee at the University of Alberta. The proposal included detailed information as to the nature and purpose of the study as well as the methods that would be used to obtain informed consent and ensure confidentiality for each participant. A copy of the letter of approval is provided in Appendix D. As no new measures were used in the present study and no additional data were collected, ethical approval was covered under that of the larger project.

Procedure

Before the data were collected for the larger study, permission had to be obtained from the school administration at each school, including the principal and the teachers that would be involved. Once permission was granted, the students themselves were told about the study and asked to participate. Each student was given an information letter and consent form to take home for their parent(s) to sign. These forms provided the parent(s) with information as to the nature and purpose of the study as well as how confidentiality would be kept (See Appendix E). Only students who returned these signed forms were included in the study.

Teachers were then asked to fill out the BASC-TRF for each participant. Completed forms were collected by research assistants and scored using the BASC computer scoring system. Students who received *T-scores* that fell within the Clinical range on the Internalizing, Externalizing and/or Clinical Maladjustment composite scales were excluded from the present investigation. The remaining participants were each assigned numbers, which would be used in place of the student's name to ensure confidentiality. After the BASC-TRF forms were collected, research assistants began administering the AST and BASC-SRP in a group format. Participants were given instructions on how to fill out the form and were told not to write down any identifying information. Research assistants remained in the room to answer questions while students completed the forms.

In the final stage of data collection, participants were administered the semi-structured interview on an individual basis. All interviews were conducted by research assistants and were taped using audiocassette recorders. Each participant was reminded

that their answers would remain confidential and only their first name and assigned number were recorded on the tape. After all the interviews had been conducted, they were transcribed and scored using the coding scheme described in Appendix B.

CHAPTER 4

Results

In this chapter, the results from the current investigation are presented. Four different statistical tests were used in order to analyze the data from the three measures used in the study. As responses to most of the interview questions were coded in a dichotomous format (i.e., conflict issues and strategies were either reported or not reported), chi-square tests were used to examine much of this data. Other tests included the univariate analysis of variance, which was used to assess conflict frequency and was coded on a Likert scale ranging from 1 (rare) to 5 (more than once a day). As well, a multivariate analysis of variance (MANOVA) was used to examine possible interaction effects between age, gender and the types and effectiveness of resolution strategies that were generated on the AST. Finally, Pearson product moment correlations were carried out in order to determine whether there was a link between positive conflict management and prosocial behaviour as assessed by teacher and self-reports of the BASC. An alpha level of .05 was used for all statistical tests. In some cases, interviewers missed interview questions, therefore, sample sizes varied for some of the statistical tests.

Perceptions or Reports of Conflict

Frequency of Conflict

To assess whether an interaction effect would occur between age, gender and the students' reports of conflict frequency, univariate analyses were used with grade level and gender as the independent variables and the frequency of conflict as the dependent variable. Though no interaction effects were found $F(1, 111) = .28$, *ns*, grade 8 students did report having a greater number of disputes ($M = 2.31$, $SD = 1.34$) than grade 4

students did ($M = 1.61$, $SD = .71$). This difference was found to be statistically significant, $F(1, 113) = 11.41$, $p < .001$ ($\eta^2 = .10$, Power = .93). No significant differences in conflict frequency were found, however, between males ($M = 2.09$, $SD = 1.23$) and females ($M = 1.84$, $SD = 1.02$), $F(1, 111) = 1.21$, *ns*.

Developmental Differences.

In regards to resolution strategies, 40% of grade 4 students and 38% of grade 8 students reported using constructive tactics to end their disputes with peers. Alternatively, only 13% of the fourth graders and 7% of the eighth graders reported using destructive tactics. Two separate chi-square tests were used to assess whether these differences were significant. In both cases, grade level was used as the independent variable, whereas the resolution strategy was used as the dependent variable. The analyses failed to find any significant differences for either constructive, $\chi^2 (1, n = 119) = .07$, *ns*; or destructive strategies, $\chi^2 (1, n = 118) = 2.65$, *ns*.

Gender Differences.

In order to assess whether gender differences occurred in regards to the types of conflict issues students reported, two separate chi-square tests were used with gender as the independent variable and conflict issue as the dependent variable. Results revealed that girls (31%) were more likely to report having disagreements over relational issues than boys (12%) were, $\chi^2 (1, n = 113) = 18.21$, $p < .001$, resulting in a moderate to large effect size ($\Phi = .40$). Boys (5.3%), on the other hand, were more likely than girls (0.9%) to report having disagreements related to status and dominance, $\chi^2 (1, n = 113) = 3.71$, $p < .05$, resulting in a small to moderate effect size ($\Phi = .18$).

Three separate chi-square analyses were also used to examine differences between gender (independent variable) and reported resolution strategies (dependent variable). The results indicated that girls (48%) were more likely to report using cooperative solutions than boys (29%), χ^2 (1, n = 119) = 21.59, $p < .001$, ($\Phi = .43$). The analyses failed to find any significant differences, however, between gender and reports of assertive (4% of boys and girls), χ^2 (1, n = 118) = .003, *ns*; or aggressive strategies (11% of boys and 8% of girls), χ^2 (1, n = 118) = .62, *ns*.

Finally, three separate chi-square analyses were used to examine differences between gender (independent variable) and affect following conflict (i.e., sad, happy, or indifferent). The results revealed that boys (32%) were more likely than girls (17%) to report feeling indifferent towards the conflict, χ^2 (1, n = 115) = 10.68, $p < .001$, (Φ = -.30) and girls (40%) were more likely than boys (30%) to report feeling sad or upset χ^2 (1, n = 116) = 3.78, $p < .05$, ($\Phi = .18$). No significant differences were found, however, between gender and reports of feeling happy (18% of boys and 23% of girls), χ^2 (1, n = 114) = .91, *ns*.

Hypothetical Conflict

To assess interaction effects between age, gender, and the type of resolution strategies that were generated on the AST, a MANOVA was conducted with age and gender as the independent variables and type of strategy as the dependent variables. An interaction occurred, which suggested grade 8 boys and girls were able to produce more cooperative solutions than their grade 4 counterparts, however, while no significant differences were found between 4th grade boys and girls, grade 8 girls did generate more cooperative solutions than their male counterparts $_{multi}F(5, 112) = 8.02$, $p < .05$. A small

to moderate effect size was found ($\eta^2 = .06$, Power = .80) (see Table 1 for means and standard deviations).

An interaction effect was also found in terms of the effectiveness of solutions generated. Eighth graders generated more effective solutions than their grade 4 counterparts, however, again this effect was stronger for females than for males ${}_{multi}F(5, 112) = 4.03, p < .05$. A small to moderate effect size was found ($\eta^2 = .03$, Power = .51) (see Table 2 for means and standard deviations).

Links Between Conflict Management and Adaptive Skills

Finally, Pearson product moment correlations were used to assess whether there was a positive relationship between conflict management and prosocial behaviour. Results of correlations between resolution strategies and adaptive skills are presented in Table 3. Although, no significant correlations were found between constructive resolution strategies and adaptive skills, a negative association did occur between prosocial abilities and the use of aggressive strategies. As well, positive links were found between the effectiveness of the solutions generated and the ability to relate to other people. Though these correlations were significant, they accounted for only 4% - 7% of the variance and thus, must be interpreted with caution.

Table 1

Means and Standard Deviations of Cooperative Responses on the AST for Age and Gender

	Cooperative Responses	
Gender	*M*	*SD*
Male		
Grade 4	.133	.188
Grade 8	.533	.434
Total	.333	.388
Female		
Grade 4	.211	.321
Grade 8	.978	.419
Total	.594	.535
Total		
Grade 4	.172	.264
Grade 8	.756	.479
Total	.464	.484

Table 2

Means and Standard Deviations of Effectiveness of AST Solutions for Age and Gender

	Effectiveness of Responses	
Gender	*M*	*SD*
Male		
Grade 4	2.98	.588
Grade 8	3.08	.371
Total	3.03	.489
Female		
Grade 4	2.99	.345
Grade 8	3.39	.299
Total	3.19	.378
Total		
Grade 4	2.99	.478
Grade 8	3.23	.369
Total	3.11	.443

Table 3

Correlations Between Conflict Management Strategies and Adaptive Skills

	Conflict Management (AST)		
Adaptive Skills (BASC)	Cooperation	Aggression	Effectiveness
Teacher Reports			
Adapt. Skills Comp.	.114	-.170	.061
Adaptability	.058	-.267*	.079
Leadership	.035	-.036	-.035
Social Skills	.107	-.259**	.115
Self-Report			
Pers. Adj. Comp.	-.006	-.231*	.113
Interpers. Relations	.045	-.211*	.187*

Note: N = 120

*$p < .05$. **$p < .01$

CHAPTER 5

Discussion

In this last chapter, the results from the current investigation will be interpreted and discussed in relation to past theory and research. As well, directions for future study will be presented along with implications for program development. Finally, the limitations of this report will be evaluated.

Interpretation of Results

The main purpose of this investigation was to explore developmental and gender differences in regards to the types of issues children and adolescents disagree upon as well as the resolution strategies they use to solve these problems. While much of the previous research on peer conflict has focused on early childhood, the present study looked at school-aged children and adolescents as well as possible interaction effects. Both age and gender differences emerged.

Perceptions or Reports of Conflict

Frequency of conflict. Supporting the predictions made on conflict frequency, grade 8 students reported higher rates of disagreement than grade 4 students did, although these rates were small for both age groups. Children, for example, reported having disputes once every two weeks or once a month. Adolescents, on the other hand, stated that they had approximately one disagreement a week, which is similar to the rates found by Raffaelli (1997). Cognitively, adolescents are starting to learn how to conceptualize, think in an abstract manner and understand multiple meanings. As a result, they may begin recognizing inconsistencies and/or inequalities in their relationships and challenging beliefs (Elkind, 1967; Hartup, 1992). Conflict, defined as mutual opposition

over competing goals or views, may then be a natural part of development, gradually increasing over the years (Shantz, 1987). Hence, adolescents would be more likely to report higher rates than children would. The cognitive advances made by adolescents may also cause them to adopt broader definitions of the term, including both major and minor disagreements in their discussions, whereas children may be more likely to focus only on major arguments.

In regards to the gender predictions that were made on conflict frequency, no significant differences were found. Previous research on this subject has provided some inconsistent findings. Miller et al. (1986), for example, discovered that, in children, boys tended to have more disputes than their female counterparts whereas, Laursen (1993) found that adolescent girls were more likely to get into disagreements than boys of the same age. In Black's (2000) study, however, adolescent boys reported having more conflict than girls did. As disagreements in the present study, were reportedly infrequent for both boys and girls in each grade level, it could be that the categories used in the Likert scale (1 = rare, 2 = once a week, 3 = more than once a week, 4 = once a day, and 5 more than once a day) were not specific enough to pick up subtle differences. Alternatively, because boys and girls argue about different things, perhaps frequency is a function of the type of issue rather than gender. That is, disagreements related to dominance or status may be just as frequent as disputes involving relational matters, thereby reinforcing the notion that studying frequency by itself does not tell the whole story. Other factors, such as the content areas and resolution strategies must also be examined in order to understand conflict episodes and outcomes.

Developmental differences. Contrary to what was predicted, no differences were found between the types of strategies that children and adolescents used to resolve their conflicts. These findings contradict previous research and theory, which have suggested that problem-solving strategies tend to become more sophisticated with age (Laursen et al., 2001). Conflict resolution, however, has become a popular topic in schools today and as such, teachers and school counsellors have become involved in instructing children about conflict and effective resolution strategies. The findings from this study revealed that a high percentage of both children (40%) and adolescents (38%) reported using constructive techniques, which may be reflective of these new teachings. In addition, because these findings were based on self-report, they may echo what the students have learned about conflict resolution, as opposed to what they would actually do in these situations. Although not done in this study, an examination of the differences between perceptions of conflict and actual performance would be beneficial to future studies

Gender differences. In support of the predictions made towards gender and conflict issues, females were found to have more disputes concerning relational issues such as not being invited to a birthday party or disclosing a secret. Males (regardless of age), on the other hand, stated they had more disputes involving status or dominance, for example, they tended to argue over who was better at specific sports. These findings are consistent with previous research (e.g., Crick, 1996; Joshi & Ferris, 2002; Raffaelli, 1997) and support social constructionist views of gender development, suggesting that variations in socialization practices and play styles may account for the differences found between boys and girls (Beall, 1983; Crombie, 1988). Males, for instance, may be reinforced for behaving in an aggressive manner, whereas females may be rewarded for

their sensitivity to social issues and nurturance. As well, boys tend to play in larger groups, interact primarily with their peers and engage in more competition than girls do. Conversely, girls tend to play in smaller, more intimate groups, play more cooperative games and also include more adults in their interactions. Because of this, girls may become more aware of the social nuances in their relationships and as such, may be more affected when problems occur within them (Crombie, 1988).

In regards to students' perceptions of resolution strategies, girls were found to report using more cooperative techniques than boys were to solve their disputes. Prior research has shown that children's conflict goals are associated with resolution tactics, for example, girls tend to have more relationship maintenance goals and use more conflict-mitigating strategies than boys do, which is consistent with the results found in the present study (Chung & Asher, 1996; Rose & Asher, 1999). Although rates of conflict between boys and girls may be similar, it is clear that they do differ in their tactics and approaches to resolution. According to socialization theories, girls may be more likely to choose constructive techniques over destructive ones because they are reinforced for prosocial behaviour, whereas overt aggression and hostility are usually discouraged. By contrast, boys are reinforced for their aggressive behaviours and taught to stand firm when defending their rights. Therefore, they may be more likely to choose power assertive or aggressive tactics to end their disagreements (Beall, 1993; Chung & Asher, 1996).

Despite research that has supported this theory, however, the results from the present study revealed no significant differences between gender and more assertive strategies. This may be due, in part, to the rapid changes that have occurred in recent

years with respect to gender roles. Females, for example, have become more involved in activities that were traditionally dominated by males (e.g., competitive sports) and as such, may take on traits or behave in a more assertive manner, which may have been reflected in the present research. Though females may engage in the same amount of conflict as males, the tactics and approaches they use to end disagreements are different. As females were also more likely to report using cooperative strategies, it may be that girls employ a wider range of solutions in response to their disputes than do boys. Furthermore, these results show that though destructive strategies may be used, it does not always have to be to the detriment of constructive solutions.

Finally, in agreement with the findings of Laursen (1993) and Raffaelli (1997), girls were found to report more negative affect following their conflicts, whereas boys tended to report indifference. This may occur because girls' peer relationships tend to be more exclusive (Crombie, 1988). Girls also tend to describe their friendships as more intimate than boys do (Azmitia, et al., 1998). Therefore, conflicts involving issues that damage social connections may have a greater impact on females. Some evidence of this may be seen in studies examining relational aggression, a strategy that tends to be used more often by girls than physical aggression is. Crick (1996) has suggested that relational aggression is a more effective way for girls to inflict harm upon others and its use may predict future maladjustment, particularly for girls. It is also possible, however, that boys are socialized to hide their feelings more than girls are. Just as aggression is discouraged in females, expressing emotion tends to be looked down upon in males. Therefore, while they may actually feel negative or positive affect following their conflicts, they may be less likely to report these feelings.

Hypothetical Conflict

Although no differences were found between children's and adolescent's reports of the constructive and destructive strategies they used, significant differences were found between the solutions they generated in response to hypothetical situations. Specifically, 8th graders were able to come up with more cooperative and effective strategies than grade 4 students did. As the AST (Caplan, et al., 1986) is, to some degree, a measure of a student's knowledge of effective resolution tactics, these findings provide further support for cognitive developmental theory, suggesting that adolescents will be better able to handle conflict situations due to the cognitive skills they have acquired (Piaget, 1965). The discrepancies that were found in terms of self-reports and hypothetical responses, may then reflect differences between what the student says they do in conflict situations as opposed to demonstrating their knowledge or awareness by generating as many solutions as they can.

In regards to gender predictions, the results also indicated that conflict management skills may develop earlier in females than in males, as girls from both grade levels were found to demonstrate more knowledge of cooperative and effective solutions than boys did. According to socialization theories, girls' early development in this area may be due, in part, to the differences that boys and girls exhibit in their play styles. Girls, for example, tend to include more adults in their daily interactions, and therefore, may model more sophisticated behaviours (Crombie, 1988). As well, early socialization pressures to conform to gender stereotypes may also influence girls to behave in a prosocial manner, and become more aware of social cues and issues (Beall, 1993; Crombie, 1988).

Links Between Conflict Management and Adaptive Skills

Finally, the results from this study also revealed, to some degree, that successful conflict management may be indicative of social ability. Specifically, students who generated effective solutions to hypothetical conflict (e.g., cooperative and some assertive strategies) also tended to be more successful in their relationships with others. Alternatively, students who generated destructive solutions were more likely to have negative levels of adjustment, problems with their peers and fewer interpersonal skills. As well, these students were less likely to behave in a cooperative manner in their daily interactions as perceived by teachers. Interestingly, there were more significant negative correlations between aggressive solutions and prosocial behaviour than there were significant positive correlations between cooperative solutions and adaptive skills. Because there are other constructive strategies on the AST besides cooperation (i.e., passive, assertive, non-confrontational), it may be that students who exhibit prosocial behaviours choose from a wider range of constructive strategies than those who are not as successful on social tasks.

Another explanation, however, may be that students who endorse destructive solutions in response to hypothetical scenarios fall into a more extreme group. Though some students may respond to real life conflict with negative behaviours, at least some of these students will have knowledge of effective and socially appropriate strategies and will provide these on hypothetical tasks. Therefore, the link between cooperative strategies and prosocial behaviour may not be quite as strong as the one between aggressive strategies and social problems. These findings are supported by previous research showing that children with social problems tend to have difficulty resolving

conflict situations (e.g., D'Zurilla, Chang, Nottingham, & Faccini, 1998; Goodman, Gravitt, & Kaslow, 1995; Rudolph, Hammen, & Burge, 1994). Rudolph et al., for example, found that children with internalizing and externalizing symptoms had high rates of social impairment and tended to exhibit hostile problem-solving strategies.

Limitations

Although many of the findings in the present investigation are supported by past theory and research, caution should be used when generalizing to other settings or populations due to the following limitations. First of all, there were some difficulties in working on a school schedule. As much as possible, the researchers tried to standardize interview questions as well as the settings in which interviews took place (i.e., quiet space away from peers), however, interview settings and time constraints were imposed by some individual schools.

Another limitation of this investigation concerns its reliance on self-report data. The information obtained from interviews and hypothetical vignettes may not accurately represent how students behave in real-life situations. Instead, students may have responded in a socially desirable manner or out of fear that they would be judged or punished for their actions. Though self-reports are valid for reporting what people perceive (especially partner's views in dyadic conflict), employing multi-informant and observational measures would further enhance future research in the area.

Limitations also occurred in regards to the semi-structured interview developed for use in the larger project. Research has shown that the dynamics of conflict can change depending on whether the disagreement occurs with a friend or an acquaintance (e.g., Hartup et al., 1988). The interview used in this study, did not always distinguish between

these two variables. As well, distinctions were not always made in regards to the sex of the opposing party. In Miller et al.'s, (1986) study, for example, females were found to use different resolution strategies depending on whether the conflict involved a male or a female. Therefore, future studies should make note of these distinctions so that findings can be generalized to similar groups.

Finally, due to the middle class, Caucasian sample used in the current study, caution should be used in generalizing the findings to other populations. Inner city students, for example, may concern themselves with different types of conflict issues and may use different methods to resolve their disputes than children and adolescents from a middle class background would.

Future Directions and Implications

Despite limitations, the present investigation provides support for previous research and further adds to it by broadening the scope of knowledge on developmental and gender issues. The findings of this study indicate, for example, the value of looking beyond surface issues such as conflict frequency to reveal a more complete picture and help us better understand the processes and functions of constructive and destructive styles of problem solving. Examining factors such as the precipitating events and resolution strategies used to end disputes, not only provides us with meaningful information as to the types of concerns boys and girls have at different ages, but also allows us to determine the cognitive and social capabilities of these age groups. Some strategies, for instance, may be effective for young children (i.e., help-seeking, passivity), but not for adolescents who have the ability to solve problems in a more sophisticated manner (i.e., cooperation). As well, there may be links between factors such that

relational difficulties may require different strategies then those involving issues of status or dominance. Finally, while there are differences between boys and girls, it is also important to realize that similarities also exist, suggesting that traditional stereotypes are being challenged. These considerations must be taken into account when structuring resolution programs or simply helping clinicians and/or teachers in their dealings with students.

In terms of practical applications, conducting a brief survey as to the types of conflict issues boys and girls face and the resolution strategies they use, may allow clinicians and/or teachers to provide more real life-examples to their students, making the educational experience more meaningful. Furthermore, by being aware of these factors, teachers may be able to better structure activities around specific issues so that their students may experience success in using new resolution strategies. For example, teachers could have students participate in games or sports where disputes related to status or dominance may occur. By structuring the setting, and allowing the students to use their newly acquired skills, they may be more likely to experience success and use these skills more often in their everyday lives. Finally, holding small focus groups can sometimes provide even more valuable information as these settings often allow students to feel more comfortable talking or sharing about conflict situations. Using techniques such as brainstorming in these settings may then, offer insight into the types of strategies they are capable of and willing to use.

Conclusion

In conclusion, the findings of the current investigation reinforce the notion that peer conflict can be a positive event as well as a negative one and may have important,

long lasting effects on the cognitive and social development of children and adolescents. Examining factors such as developmental and gender issues provides valuable information in our understanding of conflict behaviour and moreover, creates awareness as to both the commonalties and differences that may occur between boys and girls of varying age levels. Children, for example, may not be cognitively ready to manage disagreements in the same way that adolescents might. The results further emphasize the importance of looking beyond factors such as conflict frequency to realize that precipitating events often determine what termination strategies will be used.

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Appendix A

Sample Interview Questions

I'm going to ask you about your opinion about some things that happen between friends and classmates at school.

1. Can you give me an example of a time when you disagreed or had an argument with a friend/classmate? (If so, then ask) Who started it? What happened?
2. How did you go about resolving or ending this disagreement?
3. Most friends argue about things from time to time. How often do you think you disagree with your friends? (e.g. once a day, once a week?)
4. What do you argue about? Can you give me some examples?
5. How do you feel after having had a fight with a classmate or friend?
6. How do your disputes (or arguments, fights) with your friends end? [For probing ask: For example, are you both happy with the end result, are you upset with each other, avoid each other afterwards, or you both don't care?]

Appendix B

Sample of Coding Scheme

Can you give me an example of a time when you had a disagreement with a friend or a classmate?

A = Where to do things/What to do or play

B = Rules of games or sports

C = Relational issues (who is friends with who, spreading rumors or talking about someone, etc.)

D = Boys/Girls (who's cuter, who likes who)

E = School work (homework questions, correct answers)

F = Material things (clothes, how someone dresses)

G = Status/Dominance (who's better at something)

H = Daily hassles (lot's of little things, stupid things, etc.)

I = Other (I don't know, can't think of one)

How did you solve or go about ending this disagreement?

A = Passive (gave in, forgot about it, avoided each other)

B = Cooperation/Negotiation (talked it through, rock, paper, scissors, etc.)

C = Sought third party intervention (another friend, teacher, principal, etc.)

D = Destructive aggression (Physical and Verbal)

E = Non-resolution/Unresolved (we didn't)

F = Competition (play a game and winner decides solution, etc.)

G = Assertive Response (confronting the person you have a problem with, etc.)

H = Other (I don't know)

Appendix C

Sample of AST Scenarios (adapted from Caplan et. al., 1986)

Grade 4 Scenario

A kid is picking on people and calling them names. Suppose this kid picks on you a lot. What would you do if you didn't want him or her to do that anymore?

Grade 8 Scenario

Imagine that you are very good at playing musical instruments but not very good at sports. Another kid in your class is very good at sports and is constantly bugging you because you are not very good in gym class. You are sitting in the lunchroom and this kid and his friends approach you and start to tease you about how you did in gym that day. What would you do to resolve this situation?

Appendix D

Letter of Consent for Ethics Approval

FACULTIES OF EDUCATION AND EXTENSION
RESEARCH ETHICS BOARD

Faculty Application for Ethics Review

Name: Christina M. Rinaldi

E-mail: crinaldi@ualberta.ca

Project Title: Conflict resolution in children with emotional behavioral difficulties: The role of knowledge, performance, and self-perceptions

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Project Deadlines:

Starting date **April 1, 2001 (upon ethics approval)** Ending date **March 31, 2004**
If your project goes beyond the ending date, you must contact the REB in writing for an extension.

Funding:

☒ Grant Application ☐ Contract Research ☐ Non-Funded Research

☐ Other:
(Specify)

The applicant agrees to notify the Research Ethics Board in writing of any changes in research design after the application has been approved (See 66.6.6)

C M Rinaldi — April 4/2001
Signature of Applicant — Date

ETHICS REVIEW STATUS

☑ Review approved by Unit Statutory member/Alternate

☐ Review approved by Research Ethics Board

☐ Application not approved

M. Nagil — April 17, 2001
Signature of REB Member — Date

Appendix E

Parent Information Letter and Consent Form

Dear Parent(s) or Guardian(s),

I am a professor in the Department of Educational Psychology at the University of Alberta. I have worked with children and adolescents (ages 3 to 18) across a variety of educational and community settings. I am especially interested in how adolescents solve social problems with their friends and in gaining a better understanding of what adolescents "know" and what they "do." I am looking for participation from your son/daughter.

Adolescents involved in this project will be asked to participate in various activities both individually and in pairs. For example, they will be asked to build a K-Nex model. We are interested in looking at turn-taking and procedural issues (how adolescents decide who does what during the task). Students will also be asked about their own behavior (i.e., how they solve conflicts or dilemmas with their peers, and what strategies they use and why) and how they think their peers solve conflicts. They will also be required to complete visual puzzles, define words, and solve 3 social dilemmas (e.g., "What would you do if someone wouldn't share some library books?"). In total, your son/daughter will be participating for a maximum of 3 hours spread out over a 6-8 week period (e.g., 30 minutes every other week). Finally, in order to obtain a teacher's perspective on adolescents' interactions classroom teachers will also be asked to fill out a behaviour rating scale that assesses a variety of classroom behaviours, school problems, and adaptive skills.

You have my commitment that the confidentiality of all information gathered from your child remains assured. All responses obtained from your son/daughter will remain confidential and will be identified by a code number, and not by name, on the material associated with the study. To better understand strategies adolescents use with their peers the cooperative the K-Nex tasks will be videotaped. No one other than the project team will view the tapes. Students' identities will be protected at all times. Videotapes of the students building models or puzzles will be kept in a locked cabinet and only the project team will view the data. Data from this study will be kept for at least five years. Since participation is completely voluntary, your son/daughter may withdraw from the study at any time. They do not have to give a reason for dropping out, just tell the researcher or project coordinator. There is no penalty to your child should they wish to withdraw from participating.

Once the study is completed you will receive a summary of the general findings. For particular information, I am available for one-on-one feedback sessions.

The benefits of this project include:

1. Promoting leadership, social perspective-taking, and problem-solving skills;
2. Encouraging adolescents' self-awareness and self-evaluation of their behaviors and the influence these may have on others;
3. Encouraging adolescents to become more aware about and to reflect upon the feelings and behaviours of others; and
4. Promoting a co-operative learning environment.

Further benefits would entail getting representative research results that apply to your son/daughter and to adolescents their age, having access to a consultant to address related questions, provision of voluntary services such as running workshops with

parents, and running workshops with adolescents based on school and parent perceived needs. Results from this project will be published in educational and developmental journals read by other researchers.

Having your son's/daughter's participation in this project will help us gain a better understanding of adolescents' ability to solve social dilemmas. If you have any questions or concerns please do not hesitate to call me at 492-7471 or contact me through email at crinaldi@ualberta.ca and I will return your call or email within 24 hours. Please complete the attached consent form and return it to your child's grade 8 homeroom teacher. I thank you for your time and participation!

Sincerely,

Christina Rinaldi, Ph.D.
Assistant Professor
Department of Educational Psychology
University of Alberta

University of Alberta
PARENT CONSENT FORM

I, _____, hereby
(print name of parent/legal guardian or independent student)

☐ consent

☐ do not consent

for _____ to
(print name of student)

- Be interviewed
- Be tape-recorded during interviews
- Be videotaped while building K-Nex models with a classmate
- Have a behavior rating scale completed by their teacher
- Fill out a rating scale that assesses a variety of their won classroom behaviours
- Complete a brief assessment that involves solving visual puzzles, defining words, and solving 3 social dilemmas

by Dr. Christina Rinaldi and her trained research team

I understand that:

- My son/daughter may withdraw from the research at any time without penalty
- All information gathered will be treated confidentially and used for the sole purpose of research
- Any information that identifies my son/daughter will be destroyed upon completion of this research (to be finished in about 5 years)
- My son/daughter will **not** be identifiable in any documents resulting from this research

I also understand that the results of this research will be used only in the following:

- Presentations and written articles for other developmental researchers, educators, parents, and schools
- General feedback sessions with parents, teachers, and students

_____
signature of parent/legal guardian

Date signed: _____

For further information concerning the completion of the form, please contact Christina Rinaldi, PhD, University of Alberta, Department of Educational Psychology, Edmonton, AB, T6G 2G5, (780) 492-7471.

Please return this form, whether consent is given or not, to your child's homeroom teacher in the envelope provided by **DATE**. Dr. Rinaldi will collect these consent forms and proceed as indicated.